

## LISTING OF THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application.

1. (Previously Presented) An apparatus for delivering acoustic energy to a target site, comprising:  
  
a catheter; and  
  
a transducer secured to the catheter, the transducer having a surface configured to be placed on a tissue, the catheter comprising a channel located adjacent the transducer and adapted for carrying cooling fluid.
2. (Original) The apparatus of claim 1, further comprising a fluid source in fluid communication with the channel.
3. (Previously Presented) The apparatus of claim 2, the catheter comprising one or more lumens in fluid communication with the fluid source and the channel.
4. (Original) The apparatus of claim 1, further comprising a heat exchanger for cooling fluid.
5. – 7. (Cancelled)
8. (Withdrawn) The apparatus of claim 1, the catheter comprising a handle.

9. (Previously Presented) The apparatus of claim 1, further comprising an acoustic energy sensor secured to the catheter adjacent the transducer.
10. (Previously Presented) An apparatus for delivering acoustic energy to a tissue region, comprising:
- a catheter having a distal end, a proximal end, and a lumen extending there between;
  - a transducer secured to the catheter distal end, the transducer having a surface configured to be placed on a tissue region and configured to deliver acoustic energy to the tissue region; and
  - means for cooling the catheter distal end.
11. (Original) The apparatus of claim 10, the means for cooling comprising a channel located adjacent the transducer and a fluid source in fluid communication with the channel.
12. (Original) The apparatus of claim 10, further comprising a neurological signal sensor secured to the catheter distal end.
13. (Original) The apparatus of claim 10, further comprising an acoustic energy sensor secured to the catheter distal end.
14. – 20. (Cancelled)

21. (Previously Presented) A method for delivering acoustic energy to a tissue region within a body, the method comprising:

introducing a catheter carrying a transducer into a body; the transducer having a surface;

placing the surface of the transducer on the tissue region;

delivering acoustic energy to the tissue region; and

cooling a tissue adjacent or within the tissue region to reduce heat that is generated from the delivered acoustic energy.

22. (Original) The method of claim 21, further comprising delivering a blood thinning agent to the tissue region prior to delivering the acoustic energy.

23. (Original) The method of claim 21, further comprising sensing a reflected acoustic signal that is associated with the delivered acoustic energy.

24. (Original) The method of claim 23, further comprising analyzing the reflected acoustic signal to determine a location of a vessel.